

IN THE SPECIFICATION

Page 1, lines 4-6 have been amended as follows:

The present invention relates to a non-push type of push key for telephones and computers, with the push key being capable of achieving anticipated operating objectives by touch or approaching, so the operation is made easy and simple.

Page 1, lines 8-20 have been amended as follows:

The push keys on conventional telephones, mobile phones and computers (shown in FIGS. 1, 2 and 3) are generally made of one of two types of materials and are flexible or rigid. There are a variety of installations and signal sending methods for the keys, including that shown in FIG. 4, wherein ~~[[on]]~~ a faceplate 1 is provided with keyholes 10 to accommodate the push keys 2. A ~~[[, at a]]~~ lower part of the key 2 is provided with a flexible pad unit 3 of a flexible arch 31 ~~[[,]]~~ made of rubber material, with each flexible arch 31 matching each key 2. ~~Inside ,designed inside~~ each flexible arch 31 ~~is being~~ a conductive unit 32. ~~A, provided at a~~ lower part of the flexible pad unit 3 is engaged with being a circuit board 4. ~~The ,on the~~ circuit board 4 ~~is being~~ etched with a touch claw 41 for activating purpose as shown in FIG. 5. Thus, ~~[[so]]~~ when the key 2 is pushed down, the flexible arch 31 of the pad 3 is pressed and deformed, so the touch claw 41 etched on the circuit board 4 and the conductive unit are conducted, thereby creating specified signals to control the dialing of numbers and other functions.

Page 1, lines 23 and 24 have been amended as follows:

1. The user reaches out his/her finger and ~~[[aim]]~~ aims it at the key 2.
2. The user's ~~Move the~~ finger is moved to touch the key 2.

Page 1, line 28 through page 2, line 14 have been amended as follows:

Therefore, in the operation of the key 2 as described above, the finger has to be aligned with the key 2 to apply a force. Though ~~,and though~~ the force applied is not too heavy, it requires a certain force. If ~~,or if~~ the force is applied or the depth reached is not sufficient, the conductive unit 32 inside the pad unit 3 will not be able to touch the touch claw ~~[[42]]~~ 41 on the circuit board 4, and as a result, no dialing or control of the signal will be performed. On ~~[[; on]]~~ the other side, when the force applied is too much, it will result in

excessive wear on the key 2, or the creation of an instantaneous spark, thereby reducing the service life of the key 2. Meanwhile ~~[[; meanwhile]]~~, a bigger pressing force of the key 2 ~~means~~ requires a bigger friction force between the finger and the key 2, resulting in excessive wear and tear on the number, word, icon or sign printed on the surface of the key 2.

As shown in FIG. 6, since the key 2 is embedded in the keyhole 10 on the faceplate 1 ~~[[,]]~~ and to enable smooth movement of the key 2, generally, the keyhole 10 is made slightly larger than the key 2. However, ~~[[but]]~~ it also results in inclination of the key 2 when the finger is pressing on a position other than the very center of the key 2. Then ~~,and then~~, the conductive unit 32 is not capable of maintaining proper parallel contact with the touch claw 41, resulting in poor connection and failure of connection with the touch claw 41 ~~[[,]]~~ and in failure of creating dialing or control signals.

Page 2, lines 16-31 have been amended as follows:

To make improvement on the foregoing shortcomings, including shortened service life, heavy force and failure of effective touch, as found in the conventional key structure, the present invention has presented a key that is made of one of two types of material, conductive or non-conductive, to enable direct contact of the key with a circuit on a circuit board. The ~~so-designed-that the~~ key will be able to sense the movement of an operator's finger when it is in contact or approaching the key to a specified distance, so the key is capable of activating necessary dialing and sending of control signals. Thus, ~~thereby~~ the operation is made light, effortless, and capable of minimizing wear and tear on the word, icon or sign printed on the surface of the key ~~[[,]]~~ and of completely preventing the occurrence of an inclined key and failure of activation of signals.

Secondly In preferred aspects, a depression is provided at the center of the key which may include ~~,and optionally~~ a protrusion. A ~~at the center of the key, with a depression at the center of the protrusion, and a~~ touch spot is provided at the center of the depression, with the touch spot being connected directly to a circuit on the circuit board. Thus, ~~[[so]]~~ the finger will not touch neighboring keys by mistake and create wrong signals.

Page 3, lines 1-3 have been amended as follows:

~~Selectively, there is~~ In other aspects, a flexible member may be provided ~~at a lower part of below~~ the key to increase flexibility, comfort and a familiar sense of touch as found in traditional keys.

Page 3, lines 15-31 have been amended as follows:

FIG. 7 is a sectional view of a push key of the present invention-~~of push key~~.

FIG. 8 is a ~~section~~ sectional view of a second embodiment of a push key of the present invention-~~of push key~~.

FIG. 9 is a perspective view of a third embodiment of a push key of the present invention-~~of push key~~.

FIG. 10 is a ~~section~~ sectional view of the third embodiment of a push key of the present invention-~~of push key~~.

FIG. 11 is a perspective view of a fourth embodiment of a push key of the present invention-~~of push key~~.

FIG. 12 is a ~~section~~ sectional view of the fourth embodiment of a push key of the present invention-~~of push key~~.

FIG. 13 is a ~~section~~ sectional view of a fifth embodiment of a push key of the present invention-~~of push key~~.

FIG. 14 is a perspective view of a sixth embodiment of a push key of the present invention-~~of push key~~.

FIG. 15 is a ~~section~~ sectional view of the sixth embodiment of a push key of the present invention-~~of push key~~.

Page 4, lines 24-30 have been amended as follows:

~~Secondly, due~~ Due to the very light touch or lack of touch (by approaching the key body 6 without touching it) of the user's finger, wear and tear on the surface of the key body 6 ~~[[is]]~~ are minimized, and the wear and tear of the printed words, patterns or signs on the surface of the key body 6 ~~[[is]]~~ are also minimized. By such operation of light touch or approach, the key will not be inclined and result in failure of activating the signals. Also, ~~[[;]]~~ there is no spark generated by touching. Thereby, ~~thereby~~ the service life of the key body 6 is maximized.

Page 4, line 31 through page 6, line 7 have been amended as follows:

As shown in FIG. 8, there is a flexible member 8 installed between a lower part of the key body 6 and the circuit board 7, providing flexibility to the key body 6. The ~~, meanwhile,~~ the key body 6 is connected through the flexible member 8 to the circuit board 7. Therefore, ~~therefore~~ the key body 6 has a traditional sense of key touch in addition to a sensing and touch control capability.

~~As shown in~~ FIGS. 9 and 10, ~~which~~ show a perspective view and a ~~section~~ sectional view of a third embodiment of the key body 6, involving an arched protrusion 64 on a top of the key body 6. There is a touch spot 62 in the middle of the arched protrusion 64. The touch spot 62 is connected to the sensing and touch-off circuit on the circuit board 7. The key body 6 itself has no sensing performance, but the touch spot 62 has a sensing effect. The objective is to enable sensing and activating of the circuit to dial or control only when the user's finger is in touch with or approaching the touch spot 62.

FIGS. 11 and 12 show a perspective view and a ~~section~~ sectional view of a fourth embodiment of the key body 6, involving a depression 61 at the middle of the key body 6. A ~~, with a~~ touch spot 62 is provided ~~designed~~ at a lowest point in the middle of the depression 61. The ~~, then the~~ touch spot 62 is connected to the sensing and activating circuit of the circuit board 7. Thus, ~~[[so]]~~ the key body 6 itself has no sensing function, and only the touch spot 62 has a sensing effect. When ~~, for the purpose that, when~~ the operator is operating the keys, the operator's finger muscle must be aligned with and lightly pressing the key body 6, so the operator's finger muscle can reach into the depression 61 to touch the touch spot 62 or come to a specified distance from the touch spot 62, in order to activate the circuit to dial or control. The ~~[[, the]]~~ objective is to prevent unwanted touch between the operator's other fingers or other parts of his/her palm and another key body 6 that may result in unwanted transmission of signals.

FIG. 13 shows the mechanism of the touch spot 62 on the key body 6, with the flexible member 8 installed between the circuit board 7 and a lower part of the key body 6. The ~~[[, the]]~~ touch spot 62 is being connected through the flexible member 8 to the sensing circuit, providing the key body 6 with the familiar flexible touch on a traditional keyboard.

Please refer to FIGS. 14 and 15 that show a sixth embodiment, wherein a protrusion 63 is designed at the middle of the key body 6, with a depression 61 at the center of the protrusion 63. A ~~, and a~~ touch spot 62 is provided at a lowest level in the center of the depression 61. Similarly, ~~and similarly~~ the touch spot 62 is connected to a sensing and activating circuit on the circuit board 7. Thereby, the key body 6 itself does not have a sensing function, but only the touch spot 62 has a sensing effect. The ~~[[, the]]~~ purpose and operation are the same as described for the third embodiment. Optionally, as in the fifth embodiment, there is a flexible member 8 installed between the circuit board 7 and a lower part of the key body 6, providing a familiar sense of touch to the key body 6 as found in ~~[[the]]~~ conventional keys.

IN THE CLAIMS

Claim 1 (currently amended): A ~~structural improvement of the~~ push key assembly for ~~conventional~~ telephones, mobile phones and computer sets, comprising a plurality of keyholes on a faceplate; ~~[[, and]]~~ a plurality of push keys in the keyholes; and a circuit board ~~, characterized in that:~~ installed below on a lower part of the push keys ~~[[is a]]~~ and having an electrostatic or capacitor type sensing and activating circuit, with the push circuit board keys ~~that are made of one of two types of materials, conductive and non-conductive, a lower end of the key~~ being connected to ~~[[an]]~~ the electrostatic or capacitor type sensing and activating circuit ~~[[on]]~~ of the circuit board, ~~with the push key becomes a key body that is~~ keys being activated by contact and approaching of an operator's finger.

Claim 2 (currently amended): The push key assembly structural improvement of claim 1, further comprising wherein installed at a lower part of the key is a flexible member between each push key and the circuit board pushing the push key upward ~~[[,]]~~ and providing the push key with flexibility, with the push key being connected to the electrostatic or capacitive type activation circuit by the flexible member.

Claim 3 (currently amended): The push key assembly structural improvement of claim 1, wherein at a top side of each of the push keys ~~[[key]]~~ is ~~optionally~~ provided an arched protrusion, and on the arched protrusion being a touch spot, with the touch spot being connected to the electrostatic or capacitive type sensing and activating circuit ~~[[on]]~~ of the circuit board.

Claim 4 (currently amended): The push key assembly structural improvement of claim 1, wherein ~~[[at]]~~ a center of each of the push keys ~~[[key]]~~ being provided ~~[[is]]~~ with a depression and ~~[[,]]~~ at a center of the depression being ~~designed is~~ a touch spot, with the touch spot ~~[[is]]~~ connected to ~~[[an]]~~ the electrostatic or capacitive sensing and activating circuit ~~[[on]]~~ of the circuit board.

Claim 5 (currently amended): The push key assembly structural improvement of claim 1, ~~wherein further comprising~~ a protrusion ~~is designed~~ at ~~[[the]]~~ a center of each of the push keys ~~[[key]]~~ ; ~~having~~ a depression at the center of the ~~[[key,]]~~ protrusion; and a touch spot slightly protruded from ~~[[the]]~~ a center of the depression, with the touch spot point being connected to ~~[[an]]~~ the electrostatic or capacitor type sensing and activating circuit ~~[[on]]~~ of the circuit board.

Claim 6 (new): The push key assembly of claim 4, further comprising a flexible member between each push key and the circuit board pushing the push key upward and

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providing the push key with flexibility, with the push key being connected to the electrostatic or capacitive type activation circuit by the flexible member.